

What is claimed:

1. A method of assessing whether a subject is afflicted with psoriasis or a TH1-associated condition, the method comprising comparing:
  - 5 a) the level of expression of a marker in a sample from a subject, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, and
  - b) the normal level of expression of the marker in a control sample,
- 10 wherein a significant difference between the level of expression of the marker in the sample from the subject and the normal level is an indication that the subject is afflicted with psoriasis or a TH1-associated condition.
2. The method of claim 1, wherein the marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.
- 15 3. The method of claim 1, wherein the sample comprises cells obtained from the subject.
- 20 4. The method of claim 3, wherein the cells are collected from skin tissue.
5. The method of claim 3, wherein the cells are collected from blood tissue.
6. The method of claim 1, wherein the level of expression of the marker in the
- 25 sample differs from the normal level of expression of the marker in a subject not afflicted with psoriasis or a TH1-associated condition by a factor of at least about 2.
7. The method of claim 1, wherein the level of expression of the marker in the
- 30 sample differs from the normal level of expression of the marker in a subject not afflicted with psoriasis or a TH1-associated condition by a factor of at least about 5.
8. The method of claim 1, wherein the marker is not significantly expressed in non-involved tissue.
- 35 9. The method of claim 1, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a protein corresponding to the marker.

10. The method of claim 9, wherein the presence of the protein is detected using a reagent which specifically binds with the protein.

5           11. The method of claim 10, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

12. The method of claim 1, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed  
10 polynucleotide or portion thereof, wherein the transcribed polynucleotide comprises the marker.

13. The method of claim 12, wherein the transcribed polynucleotide is an mRNA.  
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14. The method of claim 12, wherein the transcribed polynucleotide is a cDNA.

15. The method of claim 12, wherein the step of detecting further comprises  
20 amplifying the transcribed polynucleotide.

16. The method of claim 1, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide which anneals with the marker or anneals with a portion of a  
25 polynucleotide, wherein the polynucleotide comprises the marker, under stringent hybridization conditions.

17. The method of claim 1, comprising comparing:  
a) the level of expression in the sample of each of a plurality of markers  
30 independently selected from the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, and  
b) the normal level of expression of each of the plurality of markers in samples of the same type obtained from control subjects not afflicted with psoriasis or a TH1-associated condition,  
35 wherein the level of expression of more than one of the markers is significantly altered, relative to the corresponding normal levels of expression of the markers, is an indication that the subject is afflicted with psoriasis or a TH1-associated condition.

18. The method of claim 17, wherein the plurality comprises two or more of the markers.

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19. The method of claim 17, wherein the plurality comprises at least five of the markers.

20. A method for monitoring the progression of psoriasis or a TH1-associated condition in a subject, the method comprising:

10 a) detecting in a subject sample at a first point in time, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7;

15 b) repeating step a) at a subsequent point in time; and

c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of psoriasis or a TH1-associated condition in the subject.

21. The method of claim 20, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7 and combinations thereof.

22. The method of claim 20, wherein marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

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23. The method of claim 20, wherein the sample comprises cells obtained from the subject.

24. The method of claim 23, wherein the cells are collected from skin tissue.

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25. The method of claim 23, wherein the cells are collected from blood tissue.

26. A method of assessing the efficacy of a test compound for inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising comparing:

35 a) expression of a marker in a first sample obtained from the subject and exposed to or maintained in the presence of the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and

Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, and

- b) expression of the marker in a second sample obtained from the subject, wherein the second sample is not exposed to the test compound,
- 5 wherein a significantly lower level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting psoriasis or a TH1-associated condition in the subject.

27. The method of claim 26, wherein the first and second samples are portions  
10 of a single sample obtained from the subject.

28. The method of claim 26, wherein the first and second samples are portions of pooled samples obtained from the subject.

29. A method of assessing the efficacy of a therapy for inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising comparing:

- a) expression of a marker in the first sample obtained from the subject prior to providing at least a portion of the therapy to the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3,  
20 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, and

- b) expression of the marker in a second sample obtained from the subject following provision of the portion of the therapy,
- wherein a significantly lower level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for  
25 inhibiting psoriasis or a TH1-associated condition in the subject.

30. A method of assessing the efficacy of a therapy for inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising comparing:

- a) expression of a marker in the first sample obtained from the subject prior to providing at least a portion of the therapy to the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3,  
30 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, and

- b) expression of the marker in a second sample obtained from the subject following provision of the portion of the therapy,
- 35 wherein a significantly enhanced level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting psoriasis or a TH1-associated condition in the subject.

31. A method of selecting a composition for inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising:

- a) obtaining a sample comprising cells from the subject;
- 5 b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7;
- 10 and
- d) selecting one of the test compositions which induces a lower level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

32. A method of selecting a composition for inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising:

- a) obtaining a sample comprising cells from the subject;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- 20 c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1B and 2B; and
- d) selecting one of the test compositions which induces an enhanced level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

33. A method of inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising:

- a) obtaining a sample comprising cells from the subject;
- b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- 30 c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7; and
- 35 d) administering to the subject at least one of the test compositions which induces a lower level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

34. A kit for assessing whether a subject is afflicted with psoriasis or a TH1-associated condition, the kit comprising reagents for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and  
5 Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

35. A kit for assessing the presence of psoriatic cells or cells participating in a TH1-associated condition, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected  
10 from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

36. A method of selecting a composition for inhibiting psoriasis or a TH1-associated condition in a subject, the method comprising:  
15 a) obtaining a sample comprising psoriatic cells or cells participating in a TH1-associated condition from the subject;  
b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;  
c) comparing expression of a marker in each of the aliquots, wherein the marker  
20 is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7;  
and  
d) administering to the subject at least one of the test compositions which induces an enhanced level of expression of the marker in the aliquot containing that test  
25 composition, relative to other test compositions.

37. A kit for assessing the suitability of each of a plurality of compounds for inhibiting psoriasis or a TH1-associated condition in a subject, the kit comprising:  
a) the plurality of compounds; and  
30 b) a reagent for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

38. A kit for assessing the presence of psoriatic cells or cells participating in a  
35 TH1-associated condition, the kit comprising an antibody, wherein the antibody specifically binds with a protein corresponding to a marker selected from the group

consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

39. A kit for assessing the presence of psoriatic cells or cells participating in a TH1-associated condition, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.
40. A method of assessing the potential of a test compound to trigger psoriasis or a TH1-associated condition in a cell, the method comprising:
- a) maintaining separate aliquots of cells in the presence and absence of the test compound; and
  - b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, wherein a significantly enhanced level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses the potential for triggering psoriasis or a TH1-associated condition in a cell.
41. A method of assessing the potential of a test compound to trigger psoriasis or a TH1-associated condition in a cell, the method comprising:
- a) maintaining separate aliquots of cells in the presence and absence of the test compound; and
  - b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7, wherein a significantly lower level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses the potential for triggering psoriasis or a TH1-associated condition in a cell.
42. A kit for assessing the potential for triggering psoriasis or a TH1-associated condition in a cell of a test compound, the kit comprising cells and a reagent for assessing expression of a marker, wherein the marker is selected from the group

consisting of the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

43. A method of treating a subject afflicted with psoriasis or a TH1-associated condition, the method comprising providing to cells of the subject afflicted with psoriasis or a TH1-associated condition a protein corresponding to a marker selected from the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

44. The method of claim 45, wherein the protein is provided to the cells by providing a vector comprising a polynucleotide encoding the protein to the cells.

45. A method of treating a subject afflicted with psoriasis or a TH1-associated condition, the method comprising providing to cells of the subject an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker selected from the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

46. A method of inhibiting psoriasis or a TH1-associated condition in a subject at risk for developing psoriasis or a TH1-associated condition, the method comprising inhibiting expression of a gene corresponding to a marker selected from the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.

47. A method of inhibiting psoriasis or a TH1-associated condition in a subject at risk for developing psoriasis or a TH1-associated condition, the method comprising enhancing expression of a gene corresponding to a marker selected from the markers listed in Tables 1-8, 10, and 12, and Figures 3, 4A, 4B, 5B, 5C, 5D, 6 Group I, 6 Group II, 6 Group III, 6 Group IV, and 7.